



State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

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April 18, 2001

CERTIFIED RETURN RECEIPT

7000 0520 0021 7582 8968

Bruce Mitchell  
Gold Star Stone, Incorporated  
P.O. Box 62  
Oakley, Idaho 83346

Re: Initial Review of Notice of Intention to Commence Large Mining Operations, Gold Star Stone, Inc., Lone Pine Quarry, M/003/050, Box Elder County, Utah

Dear Mr. Mitchell:

The Division has completed a review of your draft Notice of Intention to Commence Large Mining Operations for the mine, located in Box Elder County, Utah, which was received March 9, 2001. After reviewing the information, the Division has the following comments which will need to be addressed before tentative approval may be granted. The comments are listed below under the applicable Minerals Rule heading. Please format your response in a similar fashion. Please provide a response to this review within 45 days of your receipt of this letter.

Also, in checking with the Division of Corporations, we find that Gold Star Stone, Inc. is not listed as an entity to conduct business in the state of Utah. You will need to contact the Department of Commerce, Division of Corporations, 160 East 300 South, Salt Lake City, Utah 84111 in order to obtain a business license before we can issue final approval of your Notice.

The Division will suspend further review of your Large Mine Notice until your response to this letter is received. If you have any questions regarding this review, please contact me or Lynn Kunzler of the Minerals Staff at (801) 538-5286 and 538-5310, respectively. If you wish to arrange a meeting to sit down and discuss this review, please contact us at your earliest convenience. Thank you for your cooperation in completing this permitting action.

Sincerely,

D. Wayne Hedberg  
Permit Supervisor  
Minerals Regulatory Program

jb  
Attachment: Review  
cc: Lynn Kunzler, DOGM  
m03-50-rev.doc

## **REVIEW OF NOTICE OF INTENTION TO COMMENCE LARGE MINING OPERATIONS**

**Gold Star Stone, Inc.  
Lone Pine Quarry**

**M/003/050  
April 18, 2001**

### **R647-4-104 - Operator's, Surface and Mineral Ownership**

Please provide a map showing adjacent land and mineral ownership (and mailing addresses). (DJ)

### **R647-4-105 - Maps, Drawings & Photographs**

#### **105.1 Topographic base map, boundaries, pre-act disturbance**

Please submit a map showing the boundaries of the areas to be permitted. The maps submitted indicate an area of 14.9 acres of quarry. The permit application indicates that 50 to 75 acres will be affected, where will the additional area be located? (DJ)

#### **105.2 Surface facilities map**

Please provide a map indicating where the facilities will be located. Please indicate on the quarry A & B maps where overburden and soil stockpiles will be located. If overburden is to be stored on unmined areas, soil should be removed from these areas and stockpiled before this activity begins. Also identify and locate any additional facilities at the site. (i.e.: rock sorting areas, storage areas, etc). This map should also include a border clearly outlining the extent of the surface area and the number of acres proposed to be affected by the mining operations. (DJ)

#### **105.3 Drawings or Cross Sections (slopes, roads, pads, etc.)**

Please provide cross-sections of the affected area showing the present ground surface, the surface contours after the mining and after final reclamation. Please provide at least two cross-sections for each quarry, one north-south and one east-west. These cross-sections need to be drawn to scale for reclamation cost calculation purposes.

Please provide a reclamation treatments map for each quarry, which is the same scale as the quarry maps. Show areas of the site to receive various reclamation treatments by shading, cross-hatching or color coding to identify which reclamation treatments will be applied. Areas would include any drainage improvements or sediment control structures, topsoil storage areas, waste dumps, and disposal areas for overburden. Reclamation treatments may include but not be limited to: ripping, regrading, replacing soil, fertilizing, mulching, broadcast seeding, drill seeding and hydro seeding.

Please show a border clearly outlining the extent of the area to be reclaimed after mining. Indicate the number of acres disturbed, and the number of acres proposed for reclamation. Also show any slopes, which are proposed to remain steeper than 3 horizontal : 1 vertical. Please note, if there are any highwalls that are proposed to be steeper than 45 degrees, you will need to request a variance and provide justification as required under R647-4-112. (DJ)

**R647-4-106 - Operation Plan**

**106.2 Type of operations conducted, mining method, processing, etc.**

Please describe the typical methods and procedures to be used in mining operations, on-site processing and concurrent reclamation. (DJ)

**106.3 Estimated acreages disturbed, reclaimed, annually.**

Please indicate the estimated number of acres to be disturbed and/or reclaimed annually. (DJ)

**106.5 Existing soil types, location, amount**

Specific soils information needs to be provided to evaluate the quality and quantity of soil materials that would be available for reclamation. Much of the baseline information may be available from the Natural Resources Conservation Service in Tremonton, Utah (Soil Survey of Box Elder County, Utah, Western Part). In addition, a soil sample will need to be analyzed by a qualified lab to determine pH, EC [conductivity], % organic matter, CEC [cation exchange capacity], and fertility [total and available N, phosphorus as P (as  $P_2O_5$ ), and potassium (as  $K_2O$ )]. (LK)

Please indicate the areas where soils will be salvaged and the volume of topsoil to be stockpiled. (DJ)

**106.6 Plan for protecting & redepositing soils**

Describe how topsoil or subsoil will be removed. How much will be stockpiled for reclamation, and how will stockpiled soil materials be protected (i.e., seeded, bermed, signed, etc.). (DJ & LK)

**106.8 Depth to groundwater, extent of overburden, geology**

The plan mentions groundwater at an elevation of 300 feet below the Quarry, how was this determined? Based on field observations there is a seep or spring above the quarry. This spring or seep needs to be located on the map and this area protected. Its recharge area should also be protected. (TM)

Please provide a geologic description of the area and/or a geologic cross section representative of the mine site.

**106.9 Location & size of ore, waste, tailings, ponds**

Please show the location and size of any proposed waste/overburden dumps and stockpiles. Describe the acreage and capacity of waste dumps to be constructed. (DJ)

**R647-4-107 - Operation Practices**

**107.4 Deleterious material safely stored or removed**

If fuel and oils are stored on site, please describe the proposed storage facilities for these items. Please note, fuel tanks need to have secondary containment that has a minimum volume capacity of 110% of the fuel tank volume. (LK).

**107.5 Suitable soils removed & stored**

Until the soils data requested under R647-4-106.5 and 106.6 is submitted, this section cannot be fully evaluated. (LK)

#### **107.6 Concurrent reclamation**

Please describe plans for any concurrent reclamation activities that will take place during operations and prior to final reclamation of the site. These plans should include a map showing the location of areas to be reclaimed concurrently and discuss any reclamation activities that are not included within the final reclamation plan. The plan should describe the approximate year that reclamation will be conducted. This plan should describe any interim stabilization practices that will be used prior to final reclamation. (DJ & LK)

#### **R647-4-109 - Impact Assessment**

##### **109.1 Impacts to surface & groundwater systems**

The quarry should not be used to impound water unless it infiltrates rapidly into the surrounding quarry floor, otherwise an outlet through a porous berm to filter sediments would be considered appropriate to treat runoff. (TM )

##### **109.3 Impacts on existing soils resources**

Until the soils data requested under R647-4-106.5 and 106.6 is submitted, this section cannot be fully evaluated. (LK)

#### **R647-4-110 - Reclamation Plan**

##### **110.1 Concurrent & post mining land use**

Please add wildlife habitat to the current and post mining land uses. (LK)

##### **110.2 Roads, highwalls, slopes, drainages, pits, etc., reclaimed**

Please provide a reclamation plan for the areas to be affected. Please include the amount of overburden and soil to be replaced on the disturbed surfaces. (DJ)

##### **110.5 Revegetation planting program**

Please provide a detailed revegetation plan for the site. This plan needs to include at a minimum: depth of topsoil replacement, soil amendments and fertilizers to be added (if needed), seed bed preparation (it is suggested that the area be left in a roughened condition), seed mix to be used and seeding rate, seeding methods, including time of year for seeding (late fall is best time to seed), and mulching plans (if any), including the type of mulch and rate of application. A seed mix designed for grazing and wildlife habitat is attached. If acceptable, please make it part of your plan. (LK)

#### **R647-4-111 - Reclamation Practices**

##### **111.8 All roads & pads reclaimed**

The access road will need to be partially reclaimed to its previous (pre-mine) width of 10-12 feet (two track road). A variance will need to be requested and justified to leave the road in its current condition. (LK)

Page 4  
Initial Review  
M/003/050  
April 18, 2001

**111.12 Topsoil redistribution**

Until the soils data requested under R647-4-106.5 and 106.6 is submitted, this section cannot be fully evaluated. (LK)

**R647-4-112 - Variance**

No variances were requested.

**R647-4-113 – Surety**

A reclamation cost estimate was not provided in this submission. A surety amount cannot be calculated until the concerns stated in this review are addressed. Attached is a generic reclamation cost estimate worksheet to assist you in putting a bond estimate together. (DJ)

**R647-4-115 - Confidential Information**

No confidential information contained in this submission.

Attachments: Seedmix  
Reclamation cost estimate worksheet

Recommended Revegetation Species List  
for

Gold Star Stone, Inc  
Lone Pine Quarry  
M/003/050

Prepared by DOGM April 18, 2001

<u>Common Name</u>	<u>Species Name</u>	<u>*Rate lbs/ac (PLS)</u>
Thickspike wheatgrass	<u>Agropron dasystachum</u>	2.0
Bluebunch wheatgrass	<u>Agropyron spicatum</u>	2.0
Intermediate wheatgrass	<u>Agropyron intermedium</u>	1.0
'Piute' orchard grass	<u>Dactylis glomerata</u>	0.5
Basin Wildrye	<u>Elymus cinereus</u>	2.0
Ladac Alfalfa	<u>Medicago sativa</u>	1.0
Yellow sweetclover	<u>Melilotus officinalis</u>	0.5
Rocky mountain penstemon	<u>Penstemon strictus</u>	0.5
Small burnet	<u>Sanguisorba minor</u>	1.5
Wyoming big sagebrush	<u>Artemisia tridentata wyomingensis</u>	0.1
Serviceberry	<u>Amelanchier alnifolia</u>	1.0
Forage kochia	<u>Kochia prostrata</u>	0.5
Bitterbrush	<u>Purshia tridentata</u>	1.0
	Total	13.6 lbs/ac

\*This the broadcast seeding rate.

# RECLAMATION SURETY ESTIMATE

Mine Operator

last revision

000000

mine name

filename M000-000.WB2

page "estimate D8"

DOGM file number

County

Prepared by Utah State Division of Oil, Gas & Mining

-This estimate uses a D8 size dozer for most earthwork

Print block named "d8est" for the estimate page & "d8notes" for the notes page

Note: actual unit costs may vary according to site conditions last unit cost update 2-Aug-2000

-Amount of disturbed area which will receive reclamation treatments = 0.0 acres

-Estimated total disturbed area for this mine = 0.0 acres

Activity	Quantity	Units	\$/unit	\$	Note
Safety gates, signs, etc. (mtls & installation)	0	sum	200	0	(1)
Demolition of buildings & facilities	0	CF	0.24	0	(2)
Debris & equipment removal - trucking	0	trips	50	0	(3)
Debris & equipment removal - dump fees	0	ton	55	0	(4)
Debris & equipment removal - loading trucks w/FE load	0	hours	166	0	(5)
Demolition & debris removal - general labor	0	hours	15	0	(6)
Regrading facilities areas (1 ft depth)	0.0	acre	502	0	(7)
Regrading waste dump slopes	0	CY	0.50	0	(8)
Ripping waste dump tops	0.0	acre	234	0	(9)
Ripping stockpile & compacted areas	0.0	acre	234	0	(9)
Ripping pit floors	0.0	acre	234	0	(9)
Ripping pit access roads	0.0	acre	234	0	(9)
Creating safety berms or barriers around highwalls	0	LF	0.16	0	(10)
Ripping access roads - dozer	0.0	acre	234	0	(9)
Regrading access roads - dozer	0.0	acre	502	0	(7)
Sidecast mtl replacement on steep roads- trackhoe	0	LF	1.09	0	(11)
Surface drainage restoration or construction	0	LF	0.16	0	(10)
Topsoil replacement - dozer	0	CY	0.50	0	(12)
Topsoil replacement - scraper	0	CY	1.15	0	(13)
Topsoil replacement - truck & FE loader	0	CY	2.60	0	(14)
Mulching (2 ton/acre alfalfa)	0.0	acre	160	0	(00)
Fertilizing ( 100 lb/acre diammonium phosphate)	0.0	acre	90	0	(00)
Composted manure (10 ton/acre)	0.0	acre	300	0	(00)
Broadcast seeding (~20 lb/acre)	0.0	acre	170	0	(00)
Drill seeding (~13 lb/acre)	0.0	acre	150	0	(00)
Hydroseeding	0.0	acre	800	0	(00)
General site cleanup & trash removal	0.0	acre	50	0	(00)
Equipment mobilization	0	equip	1000	0	(00)
Reclamation Supervision	0	days	386	0	(15)
		Subtotal		0	
10% Contingency				0	
		Subtotal		\$0	
Escalate for 5 years at 3.13% per yr				0	
		Total		\$0	
Rounded surety amount in yr 2005-\$				\$0	
Average cost per disturbed acre =				ERR	

**RECLAMATION SURETY ESTIMATE**

Mine Operator

last revision

08/02/00

mine name

filename M000-000.WB2

page "estimate D8"

DOGM file number

County

Prepared by Utah State Division of Oil, Gas &amp; Mining

last unit cost update

08/02/00

**Note**

- (1) DOGM lump sum assumed
- (2) Means Heavy Construction Cost Data 2000, 02220-100-0100, mix of bldg. types, avg., excluding dump fees
- (3) Means 2000, 02225-730-5100, bldg demo, rubbish handling, \$0.50/CY permile for >8CY truck; assumed 100 miles round trip
- (4) Means 2000, 02225-740-0100, dump charges, typical urban city, tipping fees only, bldg construction mtl's
- (5) Rental Rate Blue Book 3Q/00, Cat 988B, 7CY \$85.64hr+\$39.60/hr, & Means 2000, Crew B-10U, loading trucks only\$40.87
- (6) DOGM assumed wage for unskilled general labor
- (7) Means 2000 & Blue Book 3Q/00: Cat D8N, U, mtl 2550 lb/CY, 50 ft push, 1 ft depth
- (8) Means 2000 & Blue Book 3Q/00: Cat D8N, U, mtl 2550 lb/CY, 100 ft push
- (9) Means 2000 & Blue Book 3Q/00: Cat D8N, U, multi shank rippers, speed 1.0 mph
- (9) Means 2000 & Blue Book 3Q/00: Cat D8N, U, multi shank rippers, speed 1.0 mph
- (9) Means 2000 & Blue Book 3Q/00: Cat D8N, U, multi shank rippers, speed 1.0 mph
- (9) Means 2000 & Blue Book 3Q/00: Cat D8N, U, multi shank rippers, speed 1.0 mph
- (10) Means 2000 & Blue Book 3Q/00: Cat D8N, U, mtl 2550 lb/CY, 50 ft push, used avg vol 0.5CY/LF-berm
- (9) Means 2000 & Blue Book 3Q/00: Cat D8N, U, multi shank rippers, speed 1.0 mph
- (7) Means 2000 & Blue Book 3Q/00: Cat D8N, U, mtl 2550 lb/CY, 50 ft push, 1 ft depth
- (11) Contractor's actual costs, 1991 at E/053/012 escalated to 2000-\$, Cat 225 Excavator, 20 ft wide road
- (10) Means 2000 & Blue Book 3Q/00: Cat D8N, U, mtl 2550 lb/CY, 50 ft push, used avg vol 0.5CY/LF-berm
- (12) Means 2000 & Blue Book 3Q/00: Cat D8N, U, mtl 2550 lb/CY, 100 ft push
- (13) Means 2000 & Blue Book 3Q/00: Cat 627F P-P, mtl 2550 lb/CY, 2,000 ft haul one-way, grade +/- 4%,
- (14) Means 2000 02320-200-2030: earthwork, hauling excavated or borrow material, off highway hauler, 22 CY, 1 mile round trip, no loading include
- (00) DOGM general estimate - mulching
- (00) DOGM general estimate - fertilizing
- (00) DOGM general estimate - manure \$16/ton delivered, \$14 ton/acre spreading
- (00) DOGM general estimate - broadcast seeding
- (00) DOGM general estimate - drill seeding
- (00) DOGM general estimate - hydroseeding
- (00) DOGM general estimate - site cleanup & trash removal
- (00) DOGM general estimate - equipment mobilization
- (15) Means 2000, 01300-700-0180, project manager, minimum \$1,930/wk